



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,151	11/20/2003	I-Jong Lin	200312186-1	8992
22879 7590 06/24/2009 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER LIEW, ALEX KOK SOON				
ART UNIT 2624		PAPER NUMBER		
NOTIFICATION DATE 06/24/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM

ipa.mail@hp.com

jessica.l.fusek@hp.com

# Office Action Summary

**Application No.**

10/718,151

**Applicant(s)**

LIN, I-JONG

**Examiner**

ALEX LIEW

**Art Unit**

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 April 2009.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-8, 10-14, 16-20 and 22-25 is/are rejected.  
7) ☒ Claim(s) 9, 15 and 21 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

1. The amendment filed on 4/7/09 is entered and made of record.

2. **Response to applicant's arguments**

I. In an updated search the examiner found Blank (US pat no 5,345,313) which reads on independent claims 7, 13, 19 and 25.

3. **Allowable subject matter**

Claims 1-6 are allowable.

4. **Claims Objections**

Claims 9, 15 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With regards to claim 9, the examiner cannot find any applicable prior art disclosing changing a display value of said portion of said displayed image to generate said second version of said displayed image; capturing said second version of said displayed image with said image capture device; and selectively confirming said portion of said displayed image as occluded based on an analysis of said second version of said displayed image in combination with the rest of the limitations of claim 7.

With regards to claims 15 and 21 see the rationale for claim 9.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7, 8, 10, 11, 13, 14, 16, 17, 19, 20, 22, 23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Blank (US pat no 5,345,313).

With regards to claim 7, Blank reads on a method for processing a display image (see figure 1) comprising the steps of:

passively testing a first version of said displayed image captured by an image capture device to determine if a portion of said displayed image is blocked from said image capture device (see column 8, lines 44-50, if the test pixel is determined to be an edge pixel then it is also an occluded pixel, image in figure 5C is read as the first version); and

actively testing said portion of said displayed image based on said first version of said displayed image and a second version of said displayed image to confirm whether said portion of said displayed image is blocked from said image capture device, wherein said second version of said displayed image is captured by said image capture device after being displayed on said a display device (see column 9, lines 50-57, if it is

determined as a fuzzy edge pixel then pixel is occluded, image in figure 5D is read as the second version). The images in figures 5C and 5D are captured in sequence, discussed on column 5, lines 17-19.

With regards to claim 8, Blank reads on comparing a value of each pixel of said first version of said displayed image captured by said image captured by said image device after being displayed on a display device (see figure 4, 60, current pixel is compared to the last pixel, where all pixels in the image is compared to each other).

With regards to claim 10, Blanks reads on testing another portion of said display image proximate said confirmed portion of said displayed image for occlusion (the entire image is tested, figure 4, 70 indicates the entire image is tested).

With regards to claim 11, Blanks reads on actively testing all of the pixels of said displayed image, prior to said step passively testing to initialize an estimate of said displayed image (figure 6, diagram showing the testing of the fuzzy edge image).

With regards to claims 13, 19 and 25, see the rationale for claim 7. In addition, Blanks discloses using a computer to process the steps of its invention (figure 3).

With regards to claims 14 and 20 see the rationale for claim 8.

With regards to claims 16 and 22 see the rationale for claim 10.

With regards to claims 17 and 23 see the rationale for claim 11.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12, 18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blanks '313 in view of Eschbach (US pat no 5,208,871).

With regards to claim 12, Blanks discloses all the limitations of claim 7, but does not disclose changing a threshold associated with said step of passively testing said first version of said displayed image, based upon a result of said of actively testing said portion of said displayed image. Eschbach discloses changing a threshold associated with said step of passively testing said first version of said displayed image, based upon a result of said of actively testing said portion of said displayed image (see column 9, lines 2-7). One skilled in the art would include such feature because to change values of blurry edges to improve image quality.

With regards to claims 18 and 24, see the rationale for claim 12.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX LIEW whose telephone number is (571)272-8623 or cell (917)763-1192. The examiner can be reached anytime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew C Bella/  
Supervisory Patent Examiner, Art  
Unit 2624

/Alex Liew/  
AU2624  
6/13/09